l22_xxreal_3 (TMMrbrvQJRhe8t56TvJ91W6bi7NayNJcivK)

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Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k1\_xxreal\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xxreal\_0 : \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $k2\_xxreal\_0 : \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\neg(\neg X0 \in k1\_numbers) \wedge ((X0 \neq k1\_xxreal\_0) \wedge (X0 \neq k2\_xxreal\_0))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow ((v1\_xxreal\_0\ (k1\_xxreal\_3\ X0\ X1)) \wedge (v1\_xreal\_0\ (k1\_xxreal\_3\ X0\ X1))) \tag{2}$$

Assume the following.

$$\neg v1\_xreal\_0\ k1\_xxreal\_0 \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xxreal\_0\ X2) \Rightarrow ((((v1\_xreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \Rightarrow ((X2 = k1\_xxreal\_3\ X0\ X1) \Leftrightarrow (\exists X3.(v1\_xcmplx\_0\ X3) \wedge (\exists X4.(v1\_xcmplx\_0\ X4) \wedge ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = k2\_xcmplx\_0\ X3\ X4)))))))) \wedge (((((X0 = k1\_xxreal\_0) \wedge (X1 \neq k2\_xxreal\_0)) \vee ((X1 = k1\_xxreal\_0) \wedge (X0 \neq k2\_xxreal\_0))) \Rightarrow ((X2 = k1\_xxreal\_3\ X0\ X1) \Leftrightarrow (X2 = k1\_xxreal\_0))) \wedge (((((X0 = k2\_xxreal\_0) \wedge (X1 \neq k1\_xxreal\_0)) \vee ((X1 = k2\_xxreal\_0) \wedge (X0 \neq k1\_xxreal\_0))) \Rightarrow ((X2 = k1\_xxreal\_3\ X0\ X1) \Leftrightarrow (X2 = k2\_xxreal\_0))) \wedge (\neg(\neg(v1\_xreal\_0\ X0) \wedge (v1\_xreal\_0\ X1)) \wedge ((\neg(X0 = k1\_xxreal\_0) \wedge (X1 \neq k2\_xxreal\_0)) \wedge ((\neg(X1 = k1\_xxreal\_0) \wedge (X0 \neq k2\_xxreal\_0)) \wedge ((\neg(X0 = k2\_xxreal\_0) \wedge (X1 \neq k1\_xxreal\_0)) \wedge ((\neg(X1 = k2\_xxreal\_0) \wedge (X0 \neq k1\_xxreal\_0)) \wedge (\neg(X2 = k1\_xxreal\_3\ X0\ X1) \Leftrightarrow (X2 = k6\_numbers)))))))))))) \tag{4}$$

Assume the following.

$$k1\_xxreal\_0 = k1\_numbers \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Leftrightarrow (X0 \in k1\_numbers) \tag{6}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.((v1\_xxreal\_0\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (\\ k1\_xxreal\_3\ X0\ X1 = k1\_xxreal\_3\ X1\ X0)\end{gathered} \tag{7}$$

Theorem 1

$$\begin{gathered}\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\neg \\ (k1\_xxreal\_3\ X0\ X1 = k1\_xxreal\_0) \wedge ((X0 \neq k1\_xxreal\_0) \wedge (X1 \neq k1\_xxreal\_0))))\end{gathered}$$